

ART. XIII.—*The Pharmacopœia of the United States of America.*
Fourth Decennial Revision. By authority of the National Convention for revising the Pharmacopœia, held at Washington, A. D. 1860. Philadelphia: J. B. Lippincott & Co., 1863.

EACH appearance of the *United States Pharmacopœia* at decennial periods may be said to inaugurate a new epoch in the pharmacy of this country. The work is looked for with interest by the physician and the pharmacist as the guide by which he is to be directed in his endeavours to mitigate the evils of disease, and with the expectation that, while retaining all that is good and that has been sanctioned by the experience of the past, it has been rendered additionally worthy of reliance by embodying the contributions made to science in the interim of its previous revision.

The present issue has been more than usually delayed, and it would appear that the anxiety of the public to possess the work has not been diminished by the postponement of its publication. The inquiry for it has been general and emphatic, but perhaps with some want of appreciation of the effort entailed upon the compilers, to whom, as a task of love for science purely, and with the willingness to render their knowledge and skill profitable to their fellow citizens, the enterprise of garnering up and putting into form the pharmaceutical improvements of a decennial period has been intrusted. The revision and publication of this standard work is no small undertaking, and as stated in the preface, "the Committee of Revision and Publication have realized this fact in the large amount of labour they have encountered in duly examining the mass of materials, manuscript and printed, bearing upon the proper execution of their duties." In extenuation it may be further stated that the revision of the *British Pharmacopœia*, which was commenced some time before that of the United States, has not yet been fully completed.

It is our intention in the present notice to enter into an analysis of the modifications and changes which have been introduced into our new National Authority, and to make them as perspicuous to the reader as it is in our power to accomplish. The work is now before the community, and will be judged in accordance with its deserts. Its merits or demerits can only be fully estimated when practical experience has been brought to bear upon the numerous details which are presented, and time will be required for the just appreciation of them. Until this has been done no enlightened criticism can be indulged in.

With the view to facilitate the exposition of the alterations and amendments in the revision before us, it will be expedient to arrange them in their natural order, or in accordance with the purposes and objects designed to be attained in the construction of a Pharmacopœia. By so doing we will be enabled to exhibit methodically, under their appropriate heads, the various items, and to give to them the force which is necessary to their proper comprehension. Upon this plan each alteration or supposed improvement can be satisfactorily exhibited, with the statement of the reasons which have prompted its adoption.

A Pharmacopœia then may be stated to be designed, first, to present a list of all the medicines which may be profitably employed in the practice of medicine, including those which have been long used and sanctioned by experience, as well as others which have attained sufficient notoriety to

render them worthy of enumeration. Our own Pharmacopœia has classified medicines so as to pertain to the most important, which is called the *primary list*, or to a subordinate one which is termed the *secondary list*. When an article has remained for a sufficient length of time in the secondary, to test its value and to establish a decided reputation, it may be elevated to the rank of the primary list, or if it has gone into disuse, may be dismissed from either. In this way there is provision against redundancy, and yet safety in securing the use of a reliable article of the materia medica. We are informed that "the list of the Materia Medica has undergone the usual modifications of introductions and dismissals. Fifty-five medicines have been introduced, and twenty-six dismissed, as will appear by consulting the first and second tables appended to the work. Forty-two medicines have been added to the primary, and thirteen to the secondary list. It will be noticed that among the introduced articles a considerable number have not taken the usual course of promotion, but recommended, either by later authority than that of the previous revision, or from long unofficial employment and the convenience of substitution, have been thought worthy of being made official. Chromic acid, canna, chiretta, yeast, ignatia, leptandra, carbonate of lithia, matico, pumpkin-seed, sulphate of manganese, molasses under the name Syrupus Fuscus, whiskey designated as Spiritus Frumenti, and a few others have been introduced, *de novo*, on the ground of strong testimony in their favour as remedial agents, while to others, again, as lactic acid, amylic alcohol, glacial phosphoric acid, stronger alcohol, orange flowers, belladonna root, commercial chloroform, gutta percha, &c., prominence has been given from the part they play in the formation of important preparations. Among the new articles of the secondary list will be found koosso, wahoo, yellow jessamine, cotton root, and kamala.

From the primary list thirteen articles have been dismissed, and a similar number from the secondary. The term Cinchona, as applied in a generic sense, has been discarded; and it will be found that the three varieties of pale, yellow, and red are alone authorized. There is much that can be said for and against this alteration in the mode of designating cinchona bark. So far as certainty can be secured by designating a specific variety of bark, to be used by the apothecary, the present limitation to the three mentioned will be useful; but there are other kinds which are of great importance, which are by this course not recognized as official, and which formerly were embraced under a general head as Cinchona. These are employed largely by the manufacturer, and it is not intended to preclude their use in medicine. Very inferior kinds, however, would be interpreted to be included under so general a term, and it is to preclude their substitution for the most valuable kinds that the present step has been taken; perhaps it is the wisest plan in order to obviate imposition. Most of the articles in both the lists which have been dismissed are intrinsically of little importance, or have given place to better forms of the same medicines. Lemon has been replaced by lemon-juice, and amber is not used in the shop, as the oil is made by the manufacturer, and has taken its place by the side of other articles.

In this connection it may be proper to state that such medicines, as by the subdivision of labour are now furnished by the manufacturer, are enumerated in the list of them, having been transferred from the preparations. Five articles are thus treated, and as all must admit who are engaged in the dispensation, judiciously.

In connection with an exposition of reliable lists of medicines their nomenclature is an important consideration, and this is based for the most part upon the language of the sciences pertaining to the source from which the articles are respectively derived. It is essential that the nomenclature employed should be brief, clear, and at the same time expressive; and while it is admitted that perfection cannot be attained in this somewhat changing particular, still it may be stated that the authors of the first Pharmacopœia strived diligently to attain this. It would be convenient, in this essential feature, if all analogous works in the English language presented uniformity; but the colleges of the British Empire have never conformed to the same principles with respect to nomenclature, and the authors of our work were therefore forced into the adoption of an independent method, embracing as far as possible the merits of all, with, it must be admitted, their own improvements. Aided by a better understanding of the views of each other, from inter-communication of pharmaceutical knowledge, there is no doubt that when the single British Pharmacopœia makes its appearance, a greater uniformity will be observable between it and our own with respect to nomenclature. The changes which are noticeable in the new revision are either general, involving a principle; or they are particular, pertaining simply to the change of name. The singular number has been adopted in the place of the plural: thus *Folium* has been substituted for *Folia*, in association with *aconite*, *belladonna*, &c.; and this applies not only to the Latin, but as far as practicable to the English names: thus almond is used for almonds, cubeb for cubebes, fig for figs, nutgall for galls, &c. Where several varieties of an article were formerly placed under a single name, this has been dropped and the special kinds designated: thus *Aloe* has been dropped and *Aloe Barbadosensis*, *Aloe Capensis*, *Aloe Socotrina*, introduced in the place of it. The generic name of the plant has always been assumed for the medicine where only one species is employed, while if several were used the specific names designated the varieties of the medicine. In reducing the varieties to a single one this rule has been exemplified: thus it has not been deemed essential to designate all the species of *Erigeron*, and that name has been made to subserve the purpose, so also with *Asclepias* and *Rubus*. An exception occurs in the case of *Ulmus*, which has been altered to *Ulmus Fulva*. On the contrary, the generic name has been broken up, as it were, into specific names, where these are more definite with reference to the article, as in the case of *Sinapis*, which has given place to *Sinapis Alba* and *Sinapis Nigra*. Where again only one portion of a plant is retained as efficient, the generic name is solely used instead of the portion of it: thus *Althæa* replaces *Althææ Radix*; *Conium* is used for *Conii Folia*. Some names have been entirely altered, as, for instance, *Calumba* is substituted for *Colomba*, *Vinum Xericum* for *Vinum Album*, and *Vinum Portense* for *Vinum Rubrum*.

Alteration of nomenclature is not confined to the lists of medicines; it is found in the preparations also. The termination *uretum*, except in *sulphuretum*, has been altered to *idum*, which gives the new titles "*cyanidum*" and "*ferrocyanidum*." *Antimonii Sulphuretum Præcipitatum* has been changed to *Antimonium Sulphuratum*, in consequence of the want of precision in the ingredients of the compound. *Ferrum* now comprises all forms of pure iron, and the time-honoured and time-sanctioned Dover's powder has been altered from *Pulv. Ipecac. et Opii* to *Pulvis Ipecacuanhæ Compositus*. As the *Spiritus Ætheris Nitrici* does not contain nitric acid, but the nitrous acid of the new arrangement of the compounds of nitrogen

and oxygen, it is now most satisfactorily denominated *Spiritus Ætheris Nitrosi*. Another change of name to which allusion ought to be made is of the iodide of mercury to green iodide of mercury. With respect to the names of salines the gender has been changed from masculine to feminine, "as conforming to the best latinity;" and hence, when adjectives are used in connection with them, a corresponding change of the name is exhibited: thus *Argenti Nitras Fusus* is converted into *Argenti Nitras Fusa*, &c. This alteration has been long called for by those whose classical nicety was offended in previous editions.

There is another circumstance to be noticed before dismissing this topic of alterations in nomenclature. There existed a series of English names, handed down from time immemorial, derived from vulgar sources, which in reality had no other merit than their habitual employment, and yet without accomplishing any definite purpose, while at the same time many official names were made to indicate the same substance as well in English as in Latin. This latter practice has been extended, and it is questionable whether the whole collection of English vulgar names might not have been profitably dispensed with. *Angustura* and *Cascarilla* well express the substances to which they are applied; to which have now been added *Arnica* instead of *leopardsbane*, *Calamus* for sweet flag, *Digitalis* for foxglove, &c. By this method we are freed from the synonymy and homonymy, which have been the bane of nomenclature, and which have led the public to think erroneously that prescriptions should be written in the vernacular, without comprehending that the full adoption of the language of science in the place of the vernacular affords greater safety to the community.

The next object of a pharmacopœia is to present the best forms for the administration of medicines, and in connection with them the most approved formulæ for securing efficiency in the official preparations. The alphabetical arrangement has been followed in grouping the preparations, which upon the whole has the advantage of simplicity and convenience, and to some extent admits of scientific order. In every case of a metal or chemical substance, this, however, does not permit all of its preparations being placed under the general head; thus, for instance, the tincture of the chloride of iron, instead of being placed under the head of *Ferrum*, has necessarily to be separated and placed among the tinctures. A greater observance of the alphabetical arrangement in the classes will indeed be observed in this edition than heretofore: thus the tinctures of iodine may be further cited as being found, not under iodine, but in the class mentioned along with such as are prepared from vegetable substances. A similar transposition will be discovered in *Liquores* and other classes. Had a more strictly scientific plan been adopted it would have been impossible to avoid all incongruity.

In table third a list is given of the new preparations that have been introduced, which amount to the large number of *one hundred and eleven*. They are to be found throughout the book under their appropriate headings. Many of these medicines have been thought to present better forms for administration than some from the same article of the *materia medica* long employed, while others again are so clearly improvements as to induce a substitution of them for former preparations. Under the title of *Iron* will be found chloride, citrate of iron and ammonia, sulphate of iron and ammonia, tartrate of iron and ammonia, citrate of iron and quinia, lactate of iron, pyrophosphate of iron and dried sulphate of iron, while under the head of *Liquores* will be noticed the solution of the citrate of

iron, solution of subsulphate of iron, and solution of tersulphate of iron, all being novel in this revision, and with the old retained preparations of this metal, affording infinite latitude of selection. One may, in fact, conclude either that physicians have not lost faith in this article, or that the age of iron has come again. The iodide of iron has been dismissed in consequence of the difficulty of preserving it, and for the solution of the same the syrup has been substituted, as the chemical character is best retained in this form.

Among the other preparations made officinal, may be observed purified aloes, valerianate of ammonia, atropia and its sulphate, sulphate of cadmium, sulphate of cinchonia, valerianate of quinia, and valerianate of zinc. Some more of the new preparations we shall have occasion to comment on when giving a cursory view of the modifications connected with the classes themselves. The preparations dismissed amount in all to thirty-seven; many of them have become obsolete, while others have been replaced by better. Prepared calamine has been removed in consequence of the universally sophisticated nature of the article supplied by commerce, and the precipitated carbonate of zinc directed in its place, the Ceratum Calaminæ as a consequence has fallen with it. The pulp of purging cassia is not needed, as the fruit itself is directed in the confection of senna. Infusion of sarsaparilla is not required, and the above reasons may be given with respect to the entire list.

The classes of preparations, it will be perceived, have been remodelled; this has been called for by the number of the preparations introduced, and thought to be expedient in interpolating them with the old. A necessity for change has also been entailed in consequence of the adoption of some new principles of grouping. As this feature of the work may give rise to some embarrassment, it will be well to dwell sufficiently upon it. Each class is designated by the name of the preparation, latinized, in the plural, according to the usual system, or by the name of the substance constituting the preparation and its combinations, or by the name of the substance which is the basis of all the preparations included under it. Hence we have *Aceta*, *Æthera*, *Aquæ*, *Decocta*, *Emplastræ*, *Extracta*, &c., as classes, but we have *Aloe*, *Ammonia*, *Atropia*, *Carbo*, *Collodium*, *Morphia*, *Quinia*, *Strychnia*, &c., also as classes. The remainder of them are designated by the name of the metal to which they belong, and under such designation come not only saline bodies of the metals proper, but the alkalies and their combinations; thus under the class *Hydrargyrum* will be found the preparations of mercury, while under those of *Sodium* and *Potassium* will be discovered the salts of soda and potassa; such simplicity of arrangement has only been possible in these latter times, and certainly is remarkable as an evidence of the advance and precision of chemical science. In the name of the classes an alteration has been made in a number of instances, thus, *Aquæ Medicatæ* is replaced by *Aquæ*, and *Vina Medicata* by *Vina*, and *Carbo Animalis* by *Carbo*, *Collodium* has been made a class, and the class *Liquores* is peculiar to this revision. In the former editions *Liquores* or solutions were placed under the head of each substance which they represented, but as they have attained some number, there exists no reason why they should not be collected and made to represent a class. This alteration has been made upon the principle of presenting in the form of aqueous solution fixed bodies, all of chemical origin, while the class of *Aquæ* embraces solutions of volatile matter. To follow this rule it was necessary to call *Aquæ Calcis*, *Liquor*

Calcei, while *Liquor Ammoniae* has been again placed under the designation of *Aqua*, from which, in our opinion, it should never have been taken. One anomaly exists in the class of liquores, which is that of *Liquor Guttæ Perchæ*, a solution of the substance in chloroform.

Two other classes are new to this revision, viz., *Oleo-resinæ* and *Resinæ*. As stated in the preface, these "have well defined characters, and their introduction will meet with general approval. The oleo-resins were formerly confounded with the fluid extracts; of the five that are given, those of capsicum, lupulin, and ginger, are newly introduced. "The three resins, those namely of jalap, may-apple, and scammony, appear in the *Pharmacopœia* for the first time."

A remarkable peculiarity of the work is the great increase of the class of fluid extracts. It would appear as if fashion had exerted its influence in this direction, still there is much that can be said in their favour, the smallness of the dose that can be given, from concentration of the active elements, and their convenience of employment in the place of other preparations, as well as for combination in prescriptions, render their possession highly important. There was nothing more difficult in past times than the administration of *cimicifuga*; the fluid extract of it now subserves the best purpose. The old fashioned infusion of senna may be dispensed with, and the fluid extract used for all its objects. In the case of *ipecacuanha*, the fluid extract will be found more effective than any other article. Another article to which we may refer, is the fluid extract of *colchicum* seed and of the root. Nineteen pages of the book are given to these preparations, on which is recorded the method of forming twenty-five of them. Alcohol, or diluted alcohol, is the menstruum used in all of them, and to a few a small quantity of acetic acid is added. The menstruum used in the oleo-resins is ether, which serves likewise as a mode of distinction between them and the fluid extracts.

In the alterations that have been made, some old and familiar preparations will be discovered under new titles. Thus it may be thought that soap liniment has been forgotten, yet it will be found not as *Tinctura Saponis Camphorata*, but as *Linimentum Saponis*, among the liniments; *Unguentum Simplex* is now *Unguentum Adipis*, and *Ceratum Simplex* is *Ceratum Adipis*. It should be observed that the *Liquor Potassæ Citratis* has been renamed *Mistura Potassæ Citratis*, which comports better with the common name neutral mixture. Under the head of spirits and tinctures there have been made several, as we conceive, judicious transpositions. Thus, the awkward designation of *Tinctura Olii Menthæ Piperitæ*, has been changed to *Spiritus Menthæ Piperitæ*, and so of *Menthæ Viridis*. It may be stated here that the elegant *Spiritus Ammoniae Aromaticus* has been transferred to the class of *Spiritus*. Bay rum will also be found as a new preparation in the primary list, under the title of *Spiritus Myrciæ*, from the name of the myrtle plant from which distilled, the *Myrcia Acris*. In explanation of some of the alterations in the English names of preparations, it is stated that two plans were originally adopted in designating the cerates, liniments, mixtures, pills, plasters, and ointments:—

"Sometimes the initial word of the officinal title is the name of the chief substance present in the preparation; at other times it is the name of the class to which it belongs. Thus the *Pharmacopœia* of 1850, has camphor liniment and liniment of turpentine, ammoniac plaster and plaster of ammoniac with mercury, stramonium ointment, and ointment of belladonna, sulphur ointment and ointment of iodine, &c. In cases like these the committee have preferred

the nomenclature which gives precedence to the name of the class to which the preparation belongs, and accordingly they have made forty changes of this kind. The rule, however, was not made absolute, but exceptions were admitted in a few cases in which the present names have been settled by so long usage as to make it inexpedient to change them."

While new classes have been made, containing, perchance, but a single preparation which has given rise to it, others formerly containing but one have been enlarged; thus under the denomination of Bismuthum we find the subcarbonate added to the subnitrate, under Strychnia, the sulphate has been introduced, under Aluminium dried alum and the sulphate of alumina, while alum itself has been transferred to the primary list as a manufactured commercial article. Collodium having been removed from the ethers, has been made the type of a class containing it and collodion with cantharides.

The alterations made in the formulæ must now occupy a portion of our attention. The Acetum Opii has been slightly altered in composition. According to the old formula, it contained $73\frac{1}{2}$ grains of opium to the fluidounce; it is now directed to contain 75 grains, which is exactly twice the strength of laudanum. The tinctures of opium in the former revision have been left undisturbed, but a new one has been made official under the name of Tinctura Opii Deodorata. It is to a certain extent a reproduction of the denarcotized laudanum. The difference, however, consists in the formation, in the first instance, of an aqueous extract, separating from this the narcotina by means of ether, and then by the addition of the proper amount of water and alcohol producing a diluted tincture. It is intended as a substitute for the nostrums now in the market. It will be observed that diluted hydriodic, diluted nitromuriatic, diluted phosphoric, and sulphurous acids are new preparations, the formulæ for which have been carefully prepared. The object of introducing commercial chloroform into the primary list of the materia medica was to direct attention to the difference between it and the purified article, which alone should be used for medicinal purposes. Under the designation of Chloroformum Purificatum which is the same as Chloroformum of the revision of 1850, a formula is given for the preparation from the common commercial article. This is so important a subject that sufficient stress can hardly be laid upon it. A formula is given for the Extractum Ignatiæ. This preparation has of late years become exceedingly popular with physicians, but made from no definite formula. It is now presented in a reliable form as a substitute for the extract of nuxvomica, from which it differs in containing more largely of brucia. It will be noticed that a new process has been adopted for the formation of the subnitrate of bismuth. The carbonate has been introduced, but it is prepared previously to the production of the present preparation, and used in its formation. The object of this process is to avoid the adulteration or presence of arsenic, which has in certain cases complicated the attempt to determine the source of arsenic found in the stomach, a subject some years since brought before the notice of the College of Physicians of Philadelphia, by Prof. R. E. Rogers, and which has attracted attention abroad. In the confection of senna it will be seen that the liquorice root has been discarded, while some little alteration has been admitted with respect to the other ingredients.

The tartrate of antimony and potassa is directed to be prepared by an entirely different process from that formerly used. A pure oxide of antimony is in the first place prepared and substituted for the oxychloride hitherto directed. This has also been introduced as an official preparation. To

prepare the oxide, the precipitate of the oxychloride is formed in the usual way, but subsequently washed with water of ammonia. The object of this alteration of the process is to give a purer, and at the same time, as directed by the Pharmacopœia, a more economical product. Under the class *Mel-lita* is given a formula for *Mel Boracis*, which is a convenient preparation; and among the Pills will be found the formula for Plummer's pills under the designation of *Pilulæ Antimonii Compositæ*. With respect to syrups it will be perceived that some useful modifications have been adopted. The simple syrup formula has been remodelled and a slightly weaker preparation formed, which renders it, if any change is effected, less liable to candy. Distilled water is directed and the process improved.

A substitution has been made of the *Tinctura Cardamomi Composita* for the *Tinct. Cinnamomi Composita*, which is an admirable change, the former preparation, not heretofore officinal, being a more elegant one, and both not being wanted. Under the class *Unguenta*, ointment of benzoin has been adopted. It is simply lard flavoured with the volatile ingredients of benzoin, and affords an aromatic basis for compound ointments extemporaneously directed. There has always been complaint with respect to the irritating nature of gall ointment, from the difficulty of reducing the nut-gall to a sufficiently fine powder; as a substitute in case of irritable piles the ointment of tannic acid may be used, which has additionally been made officinal. Tobacco ointment has a better formula than in the old revision. It is made with a watery extract of the drug. We may in concluding our remarks upon the preparations, advert to an error to be found in the formula for wine of ergot. Instead of the two troy ounces in it, four should have been directed: this is an inadvertence that can be corrected in the stereotype plates very readily.

We must now pass to the remaining points to complete our notice; and the first to which attention may be directed, intimately connected with the formulæ for the preparations, is *Weights and Measures*. The question, which system of weights is most appropriate for a Pharmacopœia, is a *quæstio vexata*. In England it appears to have given rise to much perplexity. The Dublin College has adopted the *avoirdupois* weight, but as it is understood, this system, after finding favour with the framers of the *New British Pharmacopœia*, has been discarded in consequence of the outside pressure that has been brought to bear against it. There is no doubt of the advantage of having but one set of weights, both for buying and selling, and for medicinal preparations. Yet in England and this country custom has so irradically sanctioned two that it is important to diminish the evil as far as possible. The main difficulty is to abolish the *avoirdupois* from the shop of the apothecary, who has the advantage of the lighter ounce pertaining to it in his sales, while inadvertently or by design this may be used in the preparations. To obviate this latter contingency all intermediate weights between troy grains and troy ounces have been discarded, and to bring constantly before the mind of the apothecary the fact that troy weight is intended, the term troy is used as the prefix to the words ounces and grains. There is here no obscurity, and the *avoirdupois* ounce cannot be honestly resorted to. It is singular that full sets of the troy weights are rarely kept in the shops, and above the drachm, cannot be found. As they can readily be procured in accordance with government standards, for this there is no excuse. With respect to this point we are told by the committee that the subject was a perplexing one.

"The final conclusion come to as to weights was to use exclusively in the formulas the grain and the troy ounce, the latter always printed troyounce, as one word. The term *pound* has been disused in them, in order to avoid the liability to mistakes from confounding the troy and avoirdupois pound; and the new word *troyounce* distinctly indicates a weight of four hundred and eighty grains, which cannot be replaced by the avoirdupois ounce through ignorance. Wine measure, as heretofore, is employed in all the formulas; the only change being the disuse of the term gallon, which measure, whenever it occurs in the Pharmacopœia of 1850, is expressed in pints. The adoption of imperial measure would have secured the advantages of uniformity with the liquid measure used throughout the British empire; but so long as the United States continue to legalize the wine measure, it is proper that physicians and apothecaries should conform to it."

Further, under the head of Preliminary Notices some directions are given which should not be overlooked. Thus, by gentle heat is meant any temperature between 90 and 100°; and when the specific gravity is mentioned the temperature assumed is 60°. The exact designation of the term saturation, and the direction for stoppage of bottles should be attended to. The specifications for *percolation* and the *process of displacement* have been rewritten. The difficulties which invest this mode of exhausting substances of their active principles, must be removed by the plain directions which are there given, and as this mode is more universally employed than previously, it must be completely comprehended to render it available. In connection with displacement it is proper to state that when the word "macerate" is employed, it means simply to soak or steep, without any reference to temperature; and when the word "digest" is used, it means in connection with soaking, the maintenance of a temperature from 150 to 200° Fahr.

Precision has also been introduced with respect to the "Fineness of Powders." "For this purpose the terms very fine, fine, moderately fine, moderately coarse, and coarse, are used—the powder passed through a sieve of eighty or more meshes to the linear inch, being designated as—*very fine*, through one of sixty meshes *fine*, through one of fifty meshes *moderately fine*, through one of forty meshes *moderately coarse*, and through one of twenty meshes *coarse*. For the convenience of apothecaries, sieves so constructed and labelled might be introduced, and the above terms thus stamped upon the minds of all manipulators in medicinal articles.

A point ought to be adverted to which has been considered of some importance by pharmacutists. It is the accentuation of the Latin pharmaceutical names, which will be found in the index.

We here close our somewhat lengthy review of the revision of the United States Pharmacopœia of 1860. First and last, at least five years have been occupied by the various societies who have contributed to it, and by the Committee of Publication. That every pains has been taken to render it worthy of the scientific bodies engaged upon it, and of the nation, there can be no doubt. It has cost much labour, research, and reflection, and in the same spirit with which the work has been executed must it be criticized. The motto which might have been appropriately adopted for the title page, and which would have a prospective signification with reference to the next revision, is

"Si quid novisti rectius istis
Candidus imperti; si non his utere mecum."

J. C.